ORDER NO. HAD8707233C8

Service Manual

Cassette Deck

RS-B505

Stereo Cassette Deck

DOLBY B·C NR HX PRO*

Color

(K)...Black Type
(S)...Silver Type

Color	Areas
(K) (S)	[E].....All European areas except United Kingdom.
(K) (S)	[EK].....United Kingdom.
(K) (S)	[EG].....F.R. Germany.
(K) (S)	[EH].....Holland.
(K) (S)	[XA].....Asia, Latin America, Middle Near East, Africa and Oceania.
(K) (S)	[XL].....Australia.
(K) (S)	[XB].....Saudi Arabia.

SPECIFICATIONS

■ CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
REC/PLAY	Solid Permalloy head
Erasing	Double-gap ferrite head
Motors	Electronically controlled DC motor
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Tape speed	4.8 cm/sec. (1-7/8 ips)
S/N	(signal level = max recording level, CrO_2 type tape)
Dolby C NR on	74 dB (CCIR)
Dolby B NR on	66 dB (CCIR)
NR off	56 dB (A weighted)
Wow and flutter	0.06% (WRMS) ±0.18% (DIN)

Frequency response	
METAL	20 Hz~18 kHz
	30 Hz~17 kHz (DIN)
	30 Hz~17 kHz (±3 dB)
CrO_2	20 Hz~17 kHz
	30 Hz~16 kHz (DIN)
	30 Hz~16 kHz (±3 dB)
NORMAL	20 Hz~16 kHz
	30 Hz~15 kHz (DIN)
	30 Hz~15 kHz (±3 dB)
Fast Forward and Rewind Time	Approx. 100 seconds with C-60 cassette tape
Input sensitivity and impedance	
MIC	0.25 mV/400 Ω~10 kΩ
LINE	60 mV/47 kΩ
Output voltage and impedance	
LINE	400 mV/3 kΩ
HEADPHONES	80 mV/8 Ω

■ GENERAL

Power consumption	20W
Power supply	
For United Kingdom and Australia	AC 50 Hz/60 Hz, 240V
For continental Europe	AC 50 Hz/60 Hz, 220V
For others	AC 50 Hz/60 Hz, 110V/127V/220V/240V
Dimensions (W×H×D)	430 × 114.5 × 248 mm (16-15/16" × 4-1/2" × 9-3/4")
Weight	4.3 kg (9.5 lb.)

Note:
Specifications are subject to change without notice.
Weight and dimensions are approximate.

* HX Pro headroom extension originated by Bang Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY", the double-D symbol, and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

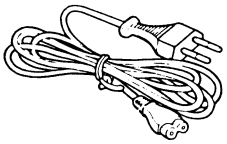
■ CONTENTS

	Page
• Accessories	2
• How to Connection	2
• Location of Controls	3
• Disassembly Instructions	4
• Measurement and Adjustment Methodes	5~7
• Microcomputer Terminal Function and Waveform	8~13
• Terminal Guide of IC's, Transistors and Diodes	13
• Replacement Parts List (Electrical Parts)	14
• Resistors & Capacitors	15, 16
• Block Diagram	17, 18
• Printed Circuit Boards	19~22
• Schematic Diagram	23~28
• Wiring Connection Diagram	29
• Mechanical Parts Location	30, 31
• Replacement Parts List (Mechanical Parts)	32
• Cabinet Parts Location	33, 34
• Replacement Parts List (Cabinet, Packings and Accessories Parts)	35

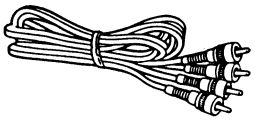
■ ACCESSORIES

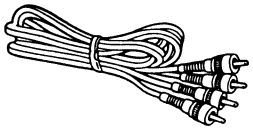
- AC power supply cord 1

SJA171	[E, EH, EG]
SFDAC05G02	[EK]
SJA173	[XL]
SJA168	[XA]
SJA183	[XB]



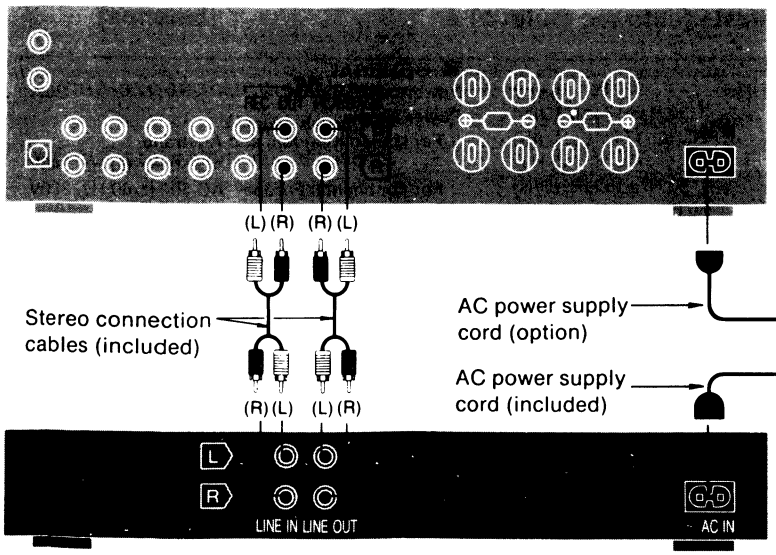
- Stereo connection cables (SJP2264) 2





Note: Configuration of AC power supply cord differs according to area.

■ HOW TO CONNECTION

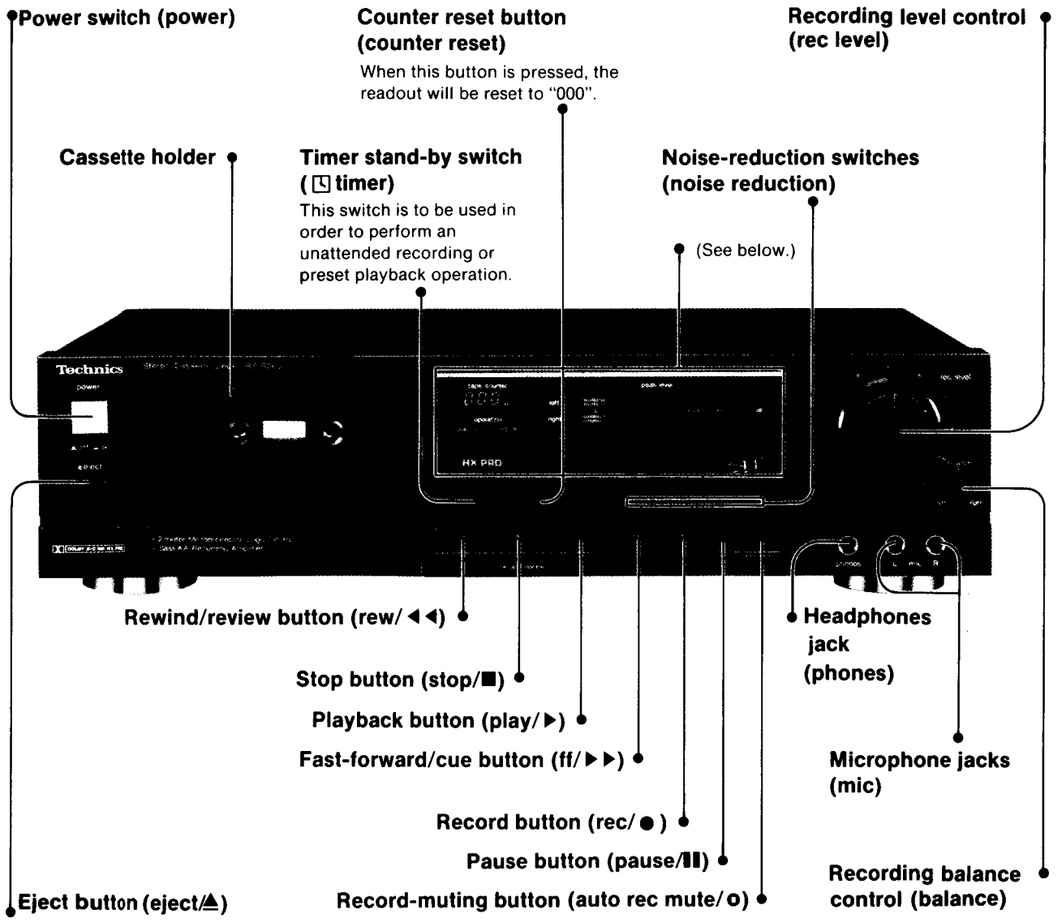


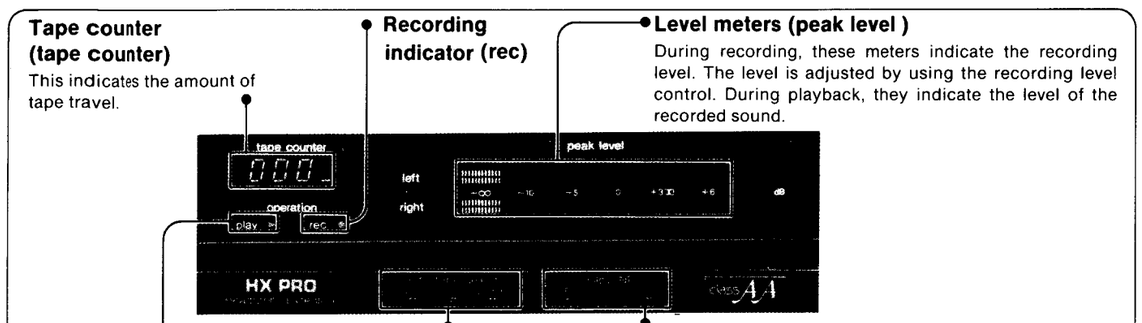
Placement Hints

If this unit is placed near a stereo amplifier or tuner, a "hum" noise may be heard during tape playback, recording, or AM reception of the tuner.
If this occurs, leave as much space as possible between the units, or place them where there is the least amount of "hum".

Note:
The configuration of the AC outlet and AC power supply cord differs according to area.
(For United Kingdom)
Fit a suitable plug to the AC power supply cord.

■ LOCATION OF CONTROLS


Power switch (power)
Counter reset button (counter reset)
When this button is pressed, the readout will be reset to "000".
Recording level control (rec level)
Cassette holder
Timer stand-by switch (timer)
This switch is to be used in order to perform an unattended recording or preset playback operation.
Noise-reduction switches (noise reduction)
(See below.)
Rewind/review button (rew/◄◄)
Stop button (stop/■)
Playback button (play/►)
Fast-forward/cue button (ff/►►)
Record button (rec/●)
Pause button (pause/❚❚)
Record-muting button (auto rec mute/o)
Eject button (eject/▲)
Headphones jack (phones)
Microphone jacks (mic)
Recording balance control (balance)


Tape counter (tape counter)
This indicates the amount of tape travel.
Recording indicator (rec)
Level meters (peak level)
During recording, these meters indicate the recording level. The level is adjusted by using the recording level control. During playback, they indicate the level of the recorded sound.
tape counter
peak level
left
right
operation
play
rec
HX PRO
Playback indicator (play)
Tape-select indicators (auto tape select)
The type of tape being used will be automatically detected and the indicator will illuminate.
Noise-reduction indicators (Dolby NR)

■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1	How to remove the cabinet
Procedure 1	• Remove the 7 screws.

Ref. No. 2	How to remove the power supply P.C.B. and the main P.C.B.
Procedure 1→2	• Remove the 7 screws (❶~❼), and then remove the rear panel. • Remove the connection rod. • Remove the 3 screws (❽~❿). • Remove the power supply P.C.B. • Remove the 6 screws (⓫~⓰). • Remove the main P.C.B.

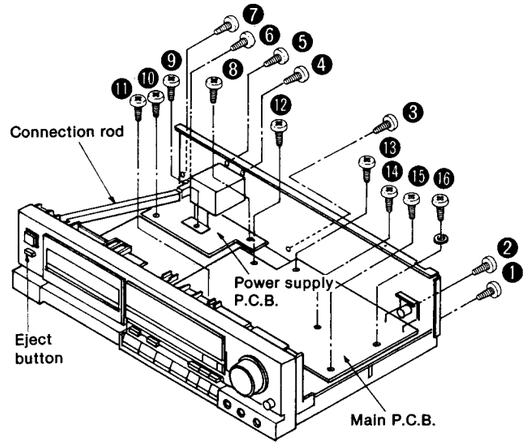


Fig. 1

Ref. No. 3	How to remove the LED meter/ volume P.C.B.
Procedure 1→2→3	• Pull out the rec. level control knob and the nut. • Pull out the balance control knob. • Remove the 3 screws (❶~❸). • Release the 2 tabs, and then remove the LED meter/volume P.C.B.

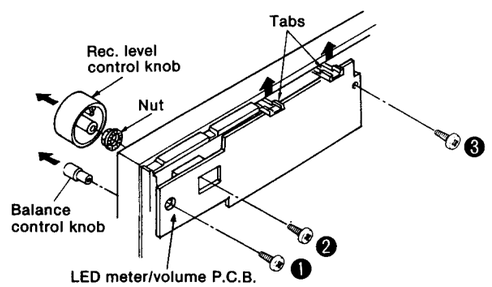


Fig. 2

Ref. No. 4	How to remove the operation switch P.C.B. and the headphones/ microphone jack P.C.B.
Procedure 1→2→3→4	• Remove the 3 screws (❶~❸). • Release the 5 tabs, and then remove the operation switch P.C.B. • Remove the 2 screws (❹, ❺), and then remove the headphones/microphone jack P.C.B.

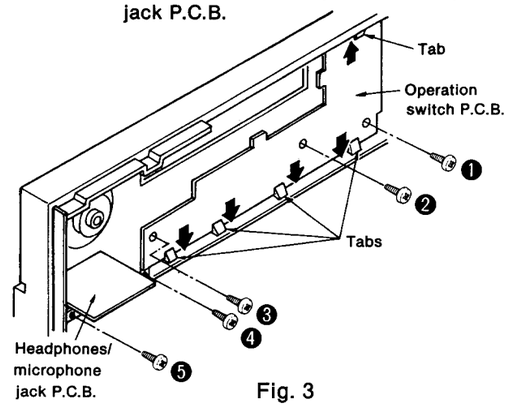


Fig. 3

Ref. No. 5	How to remove the mechanism unit.
Procedure 1→2→5	• Remove the 4 screws (❶~❹). • Remove the 3 screws (❺~❼). • Push the eject button and remove the mechanism unit.

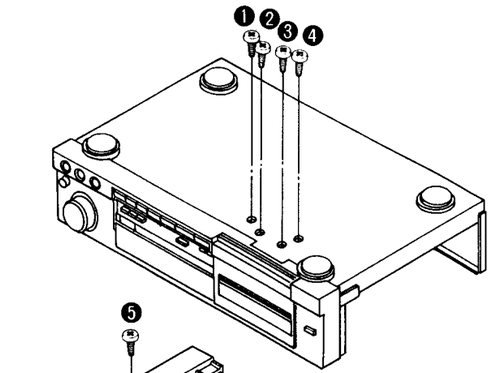


Fig. 4

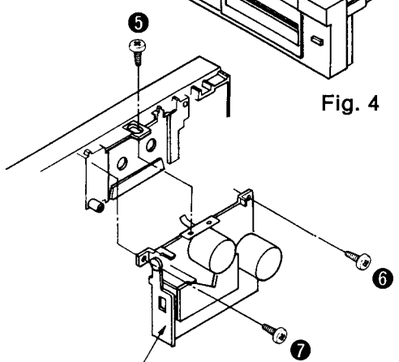


Fig. 5

■ MEASUREMENT AND ADJUSTMENT METHODES

Measurement Condition

- Rec. level control; Maximum
- Timer start switch; Off
- Noise reduction select switch; Off
- Balance control; Center
- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature 20±5°C(68±9°F)

Measuring instrument

- EVM(Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator
- ATT(Attenuator)
- DC voltmeter
- Resistor (600Ω)

Test tape

- Head azimuth adjustment (8kHz, -20dB); QZZCFM
- Tape speed adjustment (3kHz, -10dB); QZZCWAT
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, -20dB); QZZCFM
- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall frequency response, Overall gain adjustment
  Normal reference blank tape;QZZCRA
  CrO_2 reference blank tape; QZZCRX
  Metal reference blank tape; QZZCRZ

HEAD AZIMUTH ADJUSTMENT

1.Playback the azimuth adjusment portion (8 kHz, -20 dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

Note: If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2.Perform the same adjustment in the play mode.

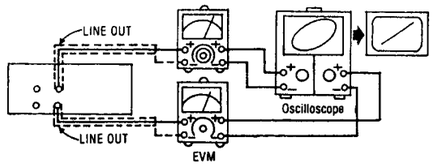


Fig.1

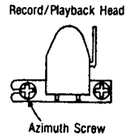


Fig.2

TAPE SPEED ADJUSTMENT

1.Playback the middle portion of the test tape (QZZCWAT).
2. Adjust the **VR** in the motor so that the output is within the standard value.

Standard value: 3000 ± 15Hz

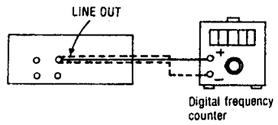


Fig.3

PLAYBACK GAIN ADUJSTMENT

1.Playback the gain adjusted portion (315 Hz, 0 dB) of the test tape (QZZCFM).
2.Adjust **VR5** (L-CH) and **VR6** (R-CH) so that the output is within the standard value.

Standard value: 0.4V±0.5dB

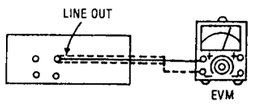


Fig.4

PLAYBACK FREQUENCY RESPONSE

1.Playback the frequency response portion (315 Hz, 12.5 kHz ~ 63 Hz, -20 dB) of the test tape (QZZCFM).
2.Assure that the frequency response is within the range shown in **Fig. 6** for both L-CH and R-CH.

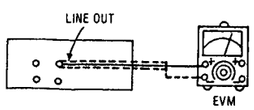


Fig.5

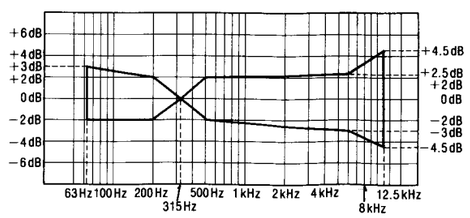


Fig.6

OVERALL FREQUENCY RESPONSE
(Bias current adj.)

1.Insert the a Normal blank test tape (QZZCRA) and set the unit to the Record Pause mode.
2.Apply a reference input signal (1 kHz, -24 dB) through an attenuator.
3.Attenuate the signal by 20 dB and adjust the frequency from 50 Hz ~ 12.5 kHz.
4.Record the frequency sweep.
5.Playback the recorded signal and assure that it is within the range shown in **Fig.8** in comparison to the reference frequency (1 kHz).
6.If it is not within the standard range, adjust **VR301** (L-CH) and **VR302** (R-CH) so that the frequency level is within the standard range.
- Level up in high frequency range.....Increase the bias current.
- Level down in high frequency range...Decrease the bias current.

7.Repeat steps 2 ~ 6 above using the CrO_2 tape(QZZCRX) and the Metal tape(QZZCRZ) increasing the frequency range to 14 kHz (50 Hz ~ 14 kHz).
8.Assure that the level is within the range shown in **Fig.9**.

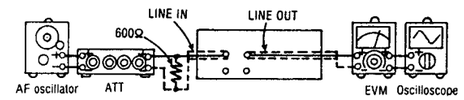


Fig.7

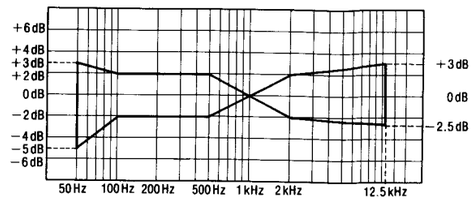


Fig.8

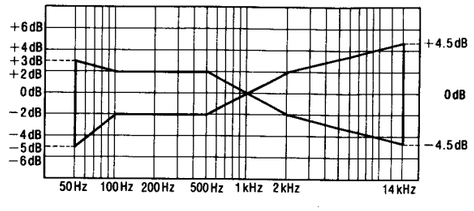


Fig.9

OVERALL GAIN ADJUSTMENT

1.Insert the Normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2.Apply a reference input signal (1 kHz, -24 dB). Attenuate the output so that its level becomes 0.42V.
3.Record this input signal.
4.Playback the signal recorded in step 3 above , and assure that the output is within the standard value.
5.If it is not within the standard value, adjust **VR7** (L-CH) and **VR8** (R-CH).
6.Repeat the step 2 ~ 5 above until the output is within the standard value.

Standard value: 0.4V ± 0.5dB

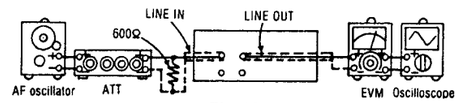
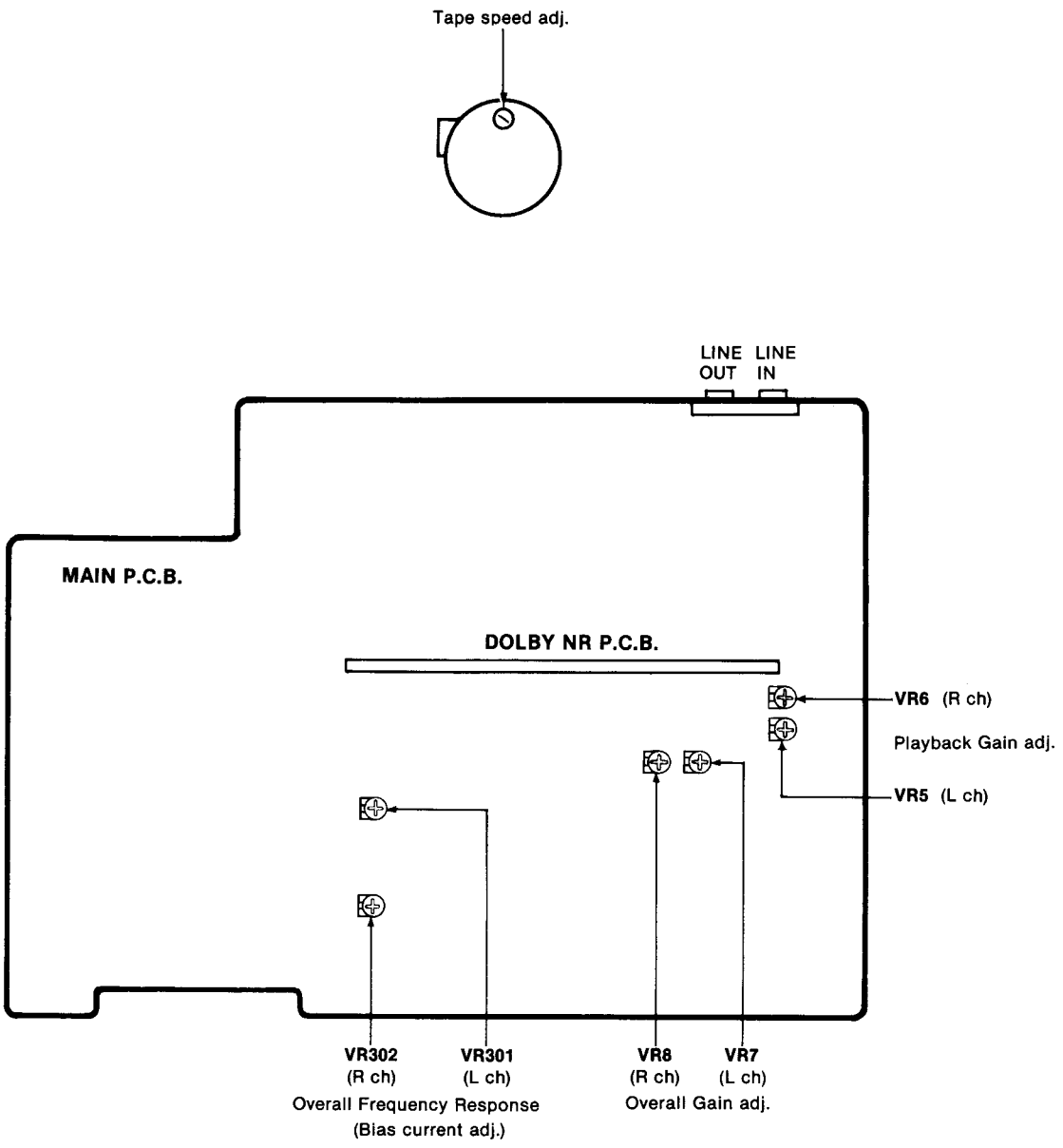


Fig.10

• **Adjustment point**

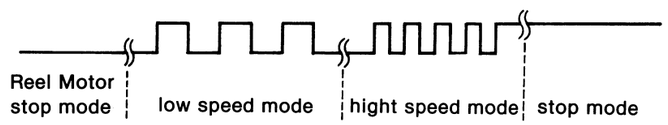
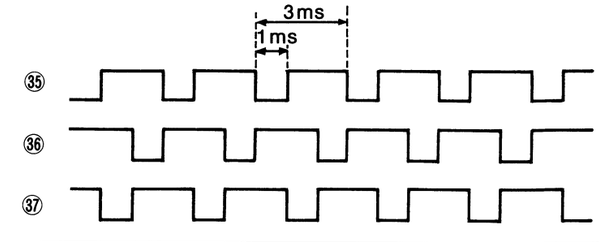


■ MICROCOMPUTER TERMINAL FUNCTION AND WAVEFORM (IC801: M50720-411SP)

*This microcomputer is used for mechanical operation.

Terminal No.	In/Out	Symbol	Function/operation
1	In/Out	NRB	Reading of DOlby B switch (S10) & Dolby B LED control. • "L" input when switch (S10) is on mode. • "H" input when switch (S10) is off mode. • Dolby B LED turned on when output level is "L". • Dolby B LED turned off when output level is "H".
2	In/Out	NRC	Reading of Dolby C switch (S11) & Dolby C LED control. • Input level is "L" when switch (S11) is on mode. • Input level is "H" when switch (S11) is off mode. • Dolby C LED turned on when output level is "L". • Dolby C LED turned off when output level is "H".
3	In/Out	NRX	• Usually "H" level.
4	Output	X_{OUT}	• Clock OSC terminal.
5	Input	X_{IN}	
6	Input	CE	Reset input terminal. • Connected to V_{DD} (+5V).
7	Input	$\overline{RESET}$	Reset terminal (The microcomputer is reset when "L" level is applied for longer than one machine cycle.).
8	Input	V_{DD}	Power supply terminal.
9	———	CNTR	Timer terminal. • Not used in this unit (Connected to GND).
10	———	INT	External interruption input terminal. • Not used in this unit (Connected to GND).
11	———	C	Terminal with external capacitor. • Not used in this unit.
12	Output	$\overline{R}$/P	Record/playback selector & Rec LED control. • Record mode and Rec LED turned on when output level is "L". • Playback mode and Rec LED turned off when output level is "H".
13	Output	$\overline{BIAS}$	Bias OSC control. • When output level is "L", Bias oscillation is state. • When output level is "H", Bias oscillation is stop.

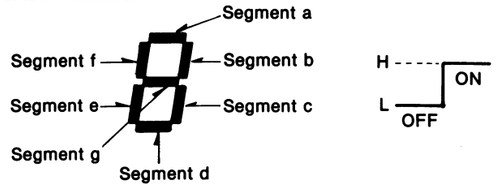
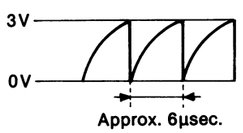
<table>
<tr><th>Terminal No.</th><th>In/Out</th><th>Symbol</th><th>Function/operation</th></tr>
<tr><td>14</td><td>Output</td><td>$\overline{120}$/70</td><td>Playback equalizer (120μs/70μs) selector.
• Equalizer is 120μs mode when output level is “L”.
• Equalizer is 70μs mode when output level is “H”.</td></tr>
<tr><td>15</td><td>Output</td><td>CUE/REV</td><td>In CUE/REVIEW action, the muting of playback amplifier is canceled. The muting of recording amplifier is also turned on or off.</td></tr>
<tr><td>16</td><td>Output</td><td>MMT</td><td>Meter mute control.
• Meter muting is on mode when output level is “L”.
• Meter muting is off mode when output level is “H”.</td></tr>
<tr><td>17</td><td>Output</td><td>NR IN/OUT</td><td rowspan="2">Noise reduction selector.<table><tr><th></th><th>NR OUT</th><th>Dolby B</th><th>Dolby C</th></tr><tr><td>17</td><td>H</td><td>L</td><td>L</td></tr><tr><td>18</td><td>H</td><td>H</td><td>L</td></tr></table></td></tr>
<tr><td>18</td><td>Output</td><td>Dolby B</td></tr>
<tr><td>19</td><td>——</td><td>dbx</td><td>• Not used in this unit.</td></tr>
<tr><td>20</td><td>——</td><td>CNV_{SS}</td><td>• Connected to V_{SS}.</td></tr>
<tr><td>21</td><td>——</td><td>V_{SS}</td><td>• Connected to GND.</td></tr>
<tr><td>22</td><td>Output</td><td>RMF</td><td rowspan="2">Reel motor rotation control.<table><tr><th></th><th>Forward direction</th><th>Reverse direction</th><th>Stop</th></tr><tr><td>22</td><td>H</td><td>L</td><td>L</td></tr><tr><td>23</td><td>L</td><td>H</td><td>L</td></tr></table></td></tr>
<tr><td>23</td><td>Output</td><td>RMR</td></tr>
<tr><td>24</td><td>Output</td><td>RPC</td><td>Reel motor torque control.
• Torque is Low (playback mode) when output level is “L”.
• Torque is Hight (FF/Rew mode) when output level is “H”.</td></tr>
<tr><td>25</td><td>Output</td><td>CPM</td><td>Capstan motor control.
• Capstan motor activated when output level is “L”.
• Capstan motor inactivated when output level is “H”.</td></tr>
<tr><td>26</td><td>Output</td><td>SOL</td><td rowspan="2">Plunger drive control.</td></tr>
<tr><td>27</td><td>Output</td><td>SOLP</td></tr>
</table>

<table>
<tr><th>Terminal No.</th><th>In/Out</th><th>Symbol</th><th>Function/operation</th></tr>
<tr><td>28</td><td>Output</td><td>DMT</td><td>Direct muting (DMT) signal.
• Direct mute is on mode when output level is “L”.
• Direct mute is off mode when output level is “H”.</td></tr>
<tr><td>29</td><td>Output</td><td>PLAY LED</td><td>Playback LED control.
• Playback LED turned on when output level is “L”.
• Playback LED turned off when output level is “H”.</td></tr>
<tr><td>30</td><td>Output</td><td>UP/DOWN</td><td>Counter up/down command.
• Counter is down when output level is “L”.
• Counter is up when output level is “H”.</td></tr>
<tr><td>31</td><td>Output</td><td>LMT</td><td>Lineout mute control.
• Lineout mute is on mode when output level is “L”.
• Lineout mute is off mode when output level is “H”.</td></tr>
<tr><td>32</td><td>Input</td><td>PLS</td><td>Rotation pulse signal of reel table.
  </td></tr>
<tr><td>33</td><td>Input</td><td>POF</td><td>Detection of power supply.
• Input level is “L” when power supply is off mode.
• Input level is “H” when power supply is on mode.</td></tr>
<tr><td>34</td><td>Input</td><td>REC INH</td><td>Rec. inhibit input.
• Input level is “L” when rec inhibit switch is on mode.
• Input level is “H” when rec. inhibit switch is off mode.</td></tr>
<tr><td>35</td><td>Output</td><td>SCAN 3</td><td rowspan="3">Key scan output.
  </td></tr>
<tr><td>36</td><td>Output</td><td>SCAN 2</td></tr>
<tr><td>37</td><td>Output</td><td>SCAN 1</td></tr>
</table>

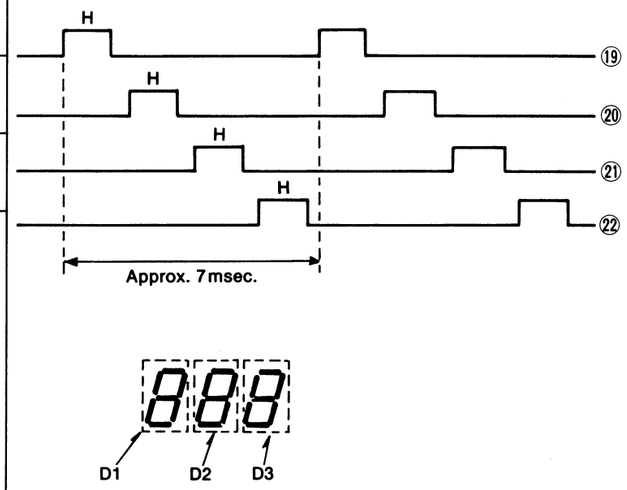
<table>
<tr><th>Terminal No.</th><th>In/Out</th><th>Symbol</th><th>Function/operation</th></tr>
<tr><td>38
39
40
41</td><td>Input
Input
Input
Input</td><td>KEY IN</td><td>Key scan input.
• Input level is “L” when switch is on mode.
• Input level is “H” when switch is cue/rev mode.
<table>
<tr><th></th><th>37
“L” level</th><th>36
“L” level</th><th>35
“L” level</th></tr>
<tr><td>38</td><td>STOP</td><td>NR OFF</td><td>CUE/REV</td></tr>
<tr><td>39</td><td>PLAY</td><td>AUTO REC.
MUTE</td><td>TIMER PLAY</td></tr>
<tr><td>40</td><td>REC.</td><td>REW</td><td>TIMER REC</td></tr>
<tr><td>41</td><td>PAUSE</td><td>FF</td><td>Usually
“H” level</td></tr>
</table></td></tr>
<tr><td>42</td><td>Input</td><td>ATS</td><td>Auto tape selector (ATS).
• Input level is “L” when ATS is on mode (Normal tape).
• Input level is “H” when ATS is off mode (CrO_2, Metal tape).</td></tr>
</table>

■ MICROCOMPUTER TERMINAL FUNCTION AND WAVEFORM (IC702: LM6417E-589)

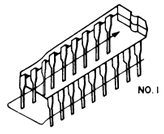
＊This microcomputer is used for tape counter operation.

Terminal No.	Symbol	Name	Function/operation
1	PD ϕ	Counter Segment a	**Number indication** 
2	PD 1	Counter Segment b	
3	PD 2	Counter Segment c	
4	PD 3	Counter Segment d	
5	OSC	Oscillation Terminal	• Clock oscillation of about 200kHz.  Note) Do not connect anything to this terminal during other measurement because it will be otherwise affected by the probe.
6	PE ϕ	Counter Segment e	• Refer to PD ϕ～PD 3.
7	PE 1	Counter Segment f	
8	PE 2	Counter Segment g	
9	PE 3	———	• Non connection.
10	TEST	TEST	• Connection to GND.
11	Vss	———	• Connection to GND.
12	INT	———	• Non connection.
13	RST	Reset Terminal	• Used to reset the microcomputer when power is thrown in. • Reset at “L” level (0.3 V_{DD} or less).
14	V_{DD}	Power Supply Terminal	• Operative on approx. 5.0 volts.
15	PA ϕ	Up/Down Command	• Selection of delay time for operation mode. • When diode (D252) is used, play time is zero.
16	PA 1	Counter Reset Input	• In “L” level, counter indication is reset to 000
17	PA 2	Counter Up/Down Input	• Up counting with “H” level. • Down counting with “L” level.
18	PA 3	Reel Table Pulse	• The rotation of reel table is detected by photo senser, and the pulses are used to carry up or down for the counter. • With the takeup reel table rotated twice, the count number changes.

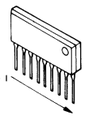
Terminal No.	Symbol	Name	Function/operation
19	PCϕ	Input Scan only	
20	PC 1	Counter D1 & Input Scan	
21	PC 2	Counter D2 & Input Scan	
22	PC 3	Counter D3 & Input Scan	



■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

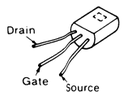


AN7016NK	30 Pin	LM6417E589	22 Pin
AN7373K	28 Pin	M50720-411SP	42 Pin
AN6888	18 Pin	μPC1297CA	18 Pin



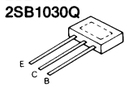
M5218L	8 Pin
BA6218	9 Pin

2SJ40CD
2SK381BC

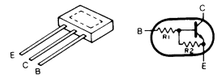


2SB621A-R
2SD592ANCQ

2SA1309AQS
2SC3311A-Q
2SD1330R
2SB1030Q

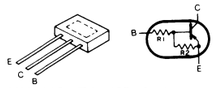


UN4211



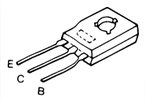
UN4211...R1 · R2: 10K

UN4113, UN4114

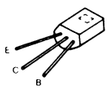


UN4113...R1 · R2: 47K
UN4114...R1: 10K, R2: 47K

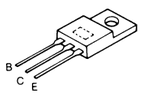
2SA885Q
2SC1846-Q

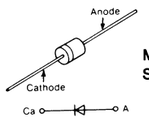


2SA1253-S

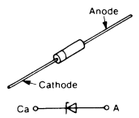


2SD1265-O
2SB941-P

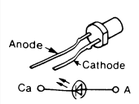




MA165
SVD1SR35200A



MA4091-M
MA4062-M
MA4082M
MA4056-M



LN38GCPP(GREEN)
LN48YCPPU (YEL)
LN88RCPP (RED)
SLR56YC (YELLOW)
SLR56URC (RED)

■ REPLACEMENT PARTS LIST

Notes: * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* Bracketed indications in Ref. No. columns specify the area.
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC1	AN7016NK	I.C REC/RLAY AMP
IC2, IC3	M5218L	I.C.BUFFER AMPBUFFER AMP
IC301	UPC1297CA	I.C.DOLBY
IC401, IC402	AN7373K	I.C.DOLBY B/C NR
IC701	AN6888	I.C.METER MUTE
IC702	LM6417E589	I.C REC/PLAY AMP
IC801	M50720-411SP	I.C.MICRO COMPUTER
IC802	BA6218	I.C.MOTOR DRIVE
TRANSISTORS		
Q1, Q2	2SJ40CD	TRANSISTOR
Q3, Q4	2SK381BC	TRANSISTOR
Q5, Q6	2SJ40CD	TRANSISTOR
Q7, Q8	2SK381BC	TRANSISTOR
Q9	UN4113	TRANSISTOR
Q13, Q14	2SA1309AQS	TRANSISTOR
Q15, Q16	2SA1309AQS	TRANSISTOR
Q17, Q18	2SC3311A-Q	TRANSISTOR
Q19, Q20	2SC3311A-Q	TRANSISTOR
Q21, Q22	2SD1330R	TRANSISTOR
Q23, Q24	2SD1330R	TRANSISTOR
Q301, Q302	2SC3311A-Q	TRANSISTOR
Q303	2SB1030Q	TRANSISTOR
Q304	2SB621A-R	TRANSISTOR
Q401, Q402	2SC3311A-Q	TRANSISTOR
Q403, Q404	2SC3311A-Q	TRANSISTOR
Q409	2SA1253-S	TRANSISTOR
Q601	2SD1265-0	TRANSISTOR
Q602	2SB941-P	TRANSISTOR
Q603	2SC1846-Q	TRANSISTOR
Q701	2SD592ANCQ	TRANSISTOR
Q702, Q703	2SC3311A-Q	TRANSISTOR
Q704, Q705	2SC3311A-Q	TRANSISTOR
Q706	UN4211	TRANSISTOR
Q802, Q803	UN4113	TRANSISTOR
Q804, Q805	UN4113	TRANSISTOR
Q806	UN4113	TRANSISTOR
Q807	2SC3311A-Q	TRANSISTOR
Q808	2SA1309AQS	TRANSISTOR
Q901, Q902	2SD592ANCQ	TRANSISTOR
Q903	2SD592ANCQ	TRANSISTOR
Q904	2SA885Q	TRANSISTOR
Q905	2SC3311A-Q	TRANSISTOR
Q908, Q909	UN4114	TRANSISTOR
Q910, Q911	UN4211	TRANSISTOR
DIODES		
D1, D2	MA165	DIODE
D3, D4	MA165	DIODE
D5, D6	MA165	DIODE
D7, D8	MA165	DIODE
D9, D10	MA165	DIODE
D11, D301	MA165	DIODE
D601, D602 ⚠	SVD1SR35200A	RECTIFIER
D603, D604 ⚠	SVD1SR35200A	RECTIFIER
D605, D606	MA165	DIODE
D607, D608	MA4091-M	DIODE
D609	MA4062-M	DIODE
D701, D702	SLR56YC	DIODE, GAASP
D703, D704	SLR56YC	DIODE, GAASP
D705, D706	SLR56YC	DIODE, GAASP
D707, D708	SLR56URC	DIODE, GAASP
D709, D710	SLR56URC	DIODE, GAASP
D711, D712	SLR56URC	DIODE, GAASP
D713, D714	MA165	DIODE
D715, D716	MA165	DIODE
D803, D804	MA165	DIODE
D805 ⚠	SVD1SR35200A	RECTIFIER
D806, D807	MA165	DIODE
D808, D809	MA165	DIODE
D810	MA165	DIODE
D902	MA4082M	DIODE
D903	MA4056-M	DIODE
D904, D905	MA165	DIODE
D906, D907	MA165	DIODE
D908	LN88RCPP	LED
D909	LN38GCPP	LED
D910	LN48YCPP	LED
D911, D912	LN38GCPP	LED
D914	LN38GCPP	LED
D915	LN88RCPP	LED
D916, D917	MA165	DIODE
D918, D919	MA165	DIODE
D920, D921	MA165	DIODE
D922, D923	MA165	DIODE
D924, D925	MA165	DIODE
D926, D927 (EK, XL)	MA165	DIODE
I.C.PROTECTORS		
ICP601, ICP602 (EK, XL)	SRUN10	IC PROTECTOR
VARIABLE RESISTORS		
VR1, VR2	EWK94A033A54	V.R. 50KΩ(A)
VR3	EWHFDAF20G15	V.R 100KΩ(G)
VR5, VR6	EVND4AA00B24	V.R, 20KΩ(B)
VR7, VR8	EVND4AA00B14	V.R, 10KΩ(B)
VR301, VR302	EVND4AA00B14	V.R, 10KΩ(B)
COILS AND TRANSFORMERS		
L1, L2	SLQX303-1K	CHOKE COIL
L3, L4	SLQX272-1YT	CHOKE COIL
L401, L402	QLB40048	M.P.X. COIL
L403, L404	SLM1B8-K	M.P.X. COIL
T301	SL09C19-K	OSCILLATOR COIL
T303, T304	SL09B1-K	OSCILLATOR COIL
T601 ⚠ (E, EH, EG)	SLT5V23-W	POWER TRANSFORMER
T601 ⚠ (XA, XB)	SLT5V25-W	POWER TRANSFORMER
T601 ⚠ (EK, XL)	SLT5V30-W	POWER TRANSFORMER
COMPONENT COMBINATIONS		
Z701	EXBF8E471J	COMBINATION PART
Z901	EXBF5E562J	COMPONENT COMBINATION
OSCILLATORS		
X801	EF0FC2004A4	CERAMIC FILTER
SWITCHES		
S1, S2	SSG13	SW REC/PLAY
S3, S4	SSG13	SW STOP/FF
S5, S6	SSG13	SW REW/PAUSE
S7	SSG13	SW REC/MUTE
S8	SSS147	SW TIMER
S9, S10	EVQQAC05G	SW DOLBY OFF
S11, S13	SSG13	SW DOLBY C/R
S601 ⚠	ESB8249V	POWER SWITCH
S602 ⚠ (XA, XB)	SSR187-1	SW. VOLTAGE SELECT
S1001, S1002	SMQA1252	SWITCH
S1003	SMQA1252	SWITCH

■ RESISTORS & CAPACITORS

Notes: * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area.
Parts without these indications can be used for all areas.

Numbering System of Resistor

Example:

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value (100Ω)

ERJ	6G	C	J	2R2
Type	Wattage	Shape	Tolerance	Value (2.2Ω)

Numbering System of Capacitor

Example:

ECKD	1H	102	Z	F
Type	Voltage	Value (1000pF)	Tolerance	Peculiarity

ECEA	50	M	R47
Type	Voltage	Peculiarity	Value (0.47μF)

Resistor Type		Wattage	Tolerance
ERD:	Carbon Resistor	10 : 1/8W	F : ±1%
ERC:	Solid Resistor	25 : 1/4W	G : ±2%
ERF:	Incombustible Box-Shaped Wire-Wound Resistor	50 : 1/2W	J : ±5%
		18 : 1/8W	K : ±10%
		14 : 1/4W	M : ±20%
		12 : 1/2W	
ERG:	Metal Oxide-Film Resistor	1 : 1W	
		2 : 2W	
ERM:	Wire-Wound Resistor	3 : 3W	
		S1 : 1/2W	
ERO:	Superstable Metal Film Resistor	S2 : 1/4W	
		6G : 1/10W	
		8G : 1/8W	
ERX:	Metal-Film Resistor		
RRJ: ERJ:	Chip Resistor		

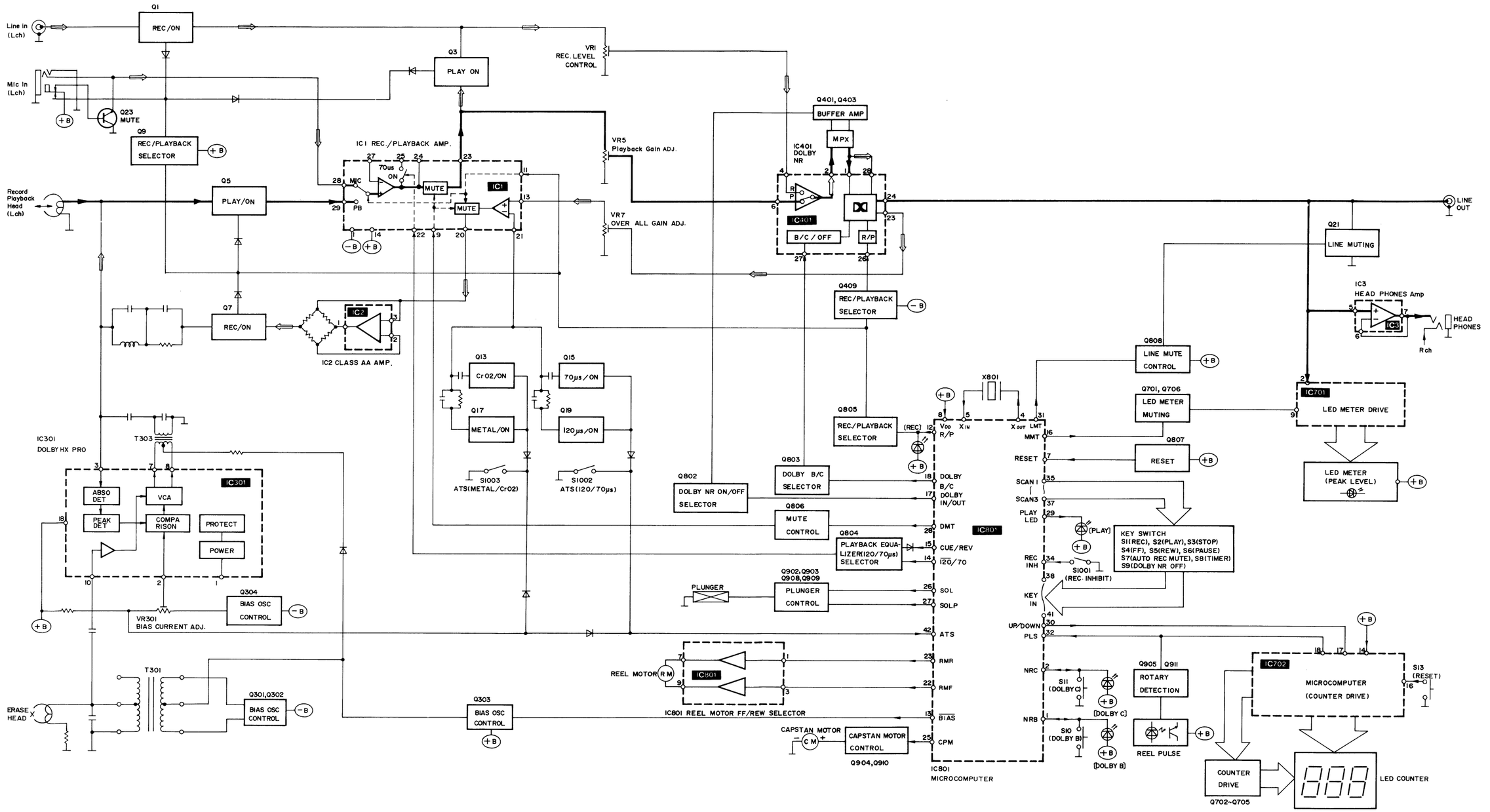
Capacitor Type		Voltage	Tolerance
ECCD:	Ceramic Capacitor (Chitacon)	(ECCD, ECKD Type) 1H : 50V DC 2H : 500V DC	K : ±10% M : ±20% Z : +80% −20% J : ±5% G : ±2% F : ±1% C : ±0.25pF D : ±0.5pF
ECKD:	Ceramic Capacitor (Chitabari)	(ECFD Type) C : 12V DC D : 25V DC E : 50V DC	
ECFD:	Semiconductor Ceramic Capacitor	(ECQ Type)	
ECE□:	Electrolytic Capacitor	05 : 50WV DC 1 : 100WV DC	
ECS□:	Tantalum Fixed Electrolytic Capacitor	(ECE, ECS Type) 0G : 4V 0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 1J : 63V 2A : 100V	
ECQ□:	Polystyrenc Film Capacitor		
ECQS:	Polystyrene Film Capacitor		
ECQS:	Polypropylene Film Capacitor		
ECQV:	T.F Capacitor		
ECU□: RCU□:	Chip Capacitor		
ECBT:	Cylindrical Ceramic Capacitor		

※ Capacity are in microfarads (μF) unless specified otherwise, P=Pico-farads.
※ Resistance are in ohms (Ω), unless specified otherwise, 1K=1,000Ω, 1M=1,000KΩ

Ref. No.	Part No.
RESISTORS	
R1, R2	ERDS2TJ183
R3, R4	ERDS2TJ473
R5, R6	ERDS2TJ102
R7, R8	ERDS2TJ472
R9	ERDS2TJ104
R10	ERDS2TJ473
R11, R12	ERDS2TJ820
R13, R14	ERDS2TJ153
R15, R16	ERDS2TJ564
R17, R18	ERDS2TJ682
R19, R20	ERDS2TJ155
R21, R22	ERDS2TJ683
R23, R24	ERDS2TJ101
R25, R26	ERDS2TJ103
R27, R28	ERDS2TJ100
R29, R30	ERDS2TJ330
R31, R32	ERDS2TJ102
R33, R34	ERDS2TJ332
R35, R36	ERDS2TJ473
R37, R38	ERDS2TJ472
R39, R40	ERDS2TJ103
R41, R42	ERDS2TJ272
R43, R44	ERDS2TJ560
R45, R46	ERDS2TJ222
R47, R48	ERDS2TJ272
R49, R50	ERDS2TJ331
R51, R52	ERDS2TJ332
R53, R54	ERDS2TJ122
R55, R56	ERDS2TJ103
R57, R58	ERDS2TJ182
R59, R60	ERDS2TJ393
R61, R62 (E, EH, EG) (XA, XB)	ERDS2TJ330
R61, R62 (EK, XL)	ERD2FCG330
R63, R64	ERDS2TJ102
R65, R66	ERDS2TJ223
R73, R74	ERDS2TJ223
R301, R302	ERDS2TJ153
R303	ERDS2TJ153
R305, R306	ERDS2TJ154
R307, R308	ERDS2TJ223
R309, R310	ERDS2TJ180
R311	ERDS2TJ473
R312	ERDS2TJ102
R313, R314	ERDS2TJ221
R315 (E, EH, EG) (XA, XB)	ERDS2TJ820
R315 (EK, XL)	ERD2FCG820
R316	ERDS2TJ1R0
R317	ERDS2TJ102
R318	ERDS2TJ103
R319	ERDS2TJ222
R321, R322	ERDS2TJ392
R401, R402	ERDS2TJ242
R403, R404	ERDS2TJ562
R405, R406	ERDS2TJ332
R407, R408	ERDS2TJ102
R409, R410	ERDS2TJ331
R411, R412	ERDS2TJ104
R413, R414	ERDS2TJ564
R415, R416	ERDS2TJ223
R417, R418	ERDS2TJ682
R419, R420	ERDS2TJ471
R421, R422	ERDS2TJ912
R423, R424	ERDS2TJ473
R425, R426	ERDS2TJ512
R427, R428	ERDS2TJ564
R429, R430	ERDS2TJ274
R431, R432	ERDS2TJ684
R433, R434	ERDS2TJ684
R435, R436	ERDS2TJ562
R448	ERDS2TJ392
R601 (EK, XL)	ERDS1FJ391
R601 (E, EH, EG) (XA, XB)	ERDS2TJ391
R602 (EK, XL)	ERDS1FJ391
R602 (E, EH, EG) (EK, XL)	ERDS2TJ391
R603 (EK, XL)	ERD2FCJ8R2
R603 (E, EH, EG) (XA, XB)	ERX1ANJ8R2
R604	ERDS2TJ102
R605 (E, EH, EG) (XA, XB)	ERDS2TJ270
R605 (EK, XL)	ERD2FCG270
R606 (E, EH, EG) (XA, XB)	ERDS2TJ270
R606 (EK, XL)	ERD2FCG270
R607, R608	ERDS2TJ560
R609, R610 (EK, XL)	ERQ14LKR22
R701, R702	ERDS2TJ363
R703, R704	ERDS2TJ472
R705, R706	ERDS2TJ154
R707	ERDS2TJ562
R708, R709	ERDS2TJ220
R710, R711	ERDS2TJ181
R712	ERDS2TJ182
R713, R714	ERDS2TJ333
R715, R716	ERDS2TJ333
R717	ERDS2TJ273
R718, R719	ERDS2TJ102
R720, R721	ERDS2TJ102
R810	ERDS2TJ272
R811	ERDS2TJ332
R812, R813	ERDS2TJ103
R814	ERDS2TJ103
R815	ERDS2TJ563
R817	ERDS2TJ221
R818	ERDS2TJ103
R819	ERDS2TJ123

Ref. No.	Part No.
R820	ERDS2TJ563
R821, R822	ERDS2TJ103
R823	ERDS2TJ103
R824	ERDS2TJ272
R826	ERDS2TJ103
R827	ERDS2TJ105
R828	ERDS2TJ471
R829	ERDS2TJ182
R830	ERDS2TJ472
R831, R832	ERDS2TJ103
R833	ERDS2TJ102
R834	ERDS2TJ103
R835	ERDS2TJ102
R840	ERDS2TJ103
R841	ERDS2TJ104
R842	ERDS2TJ102
R901, R902	ERDS2TJ103
R903 (EK, XL)	ERF5AJ390
R903 (E, EH, EG) (XA, XB)	ERG1ANJ390
R904	ERDS2TJ391
R905	ERDS2TJ152
R906	ERG2ANJ560
R907	ERDS2TJ152
R908	ERDS2TJ104
R909, R910	ERDS2TJ273
R911	ERDS2TJ102
R912	ERDS2TJ471
R913	ERDS2TJ222
R914	ERDS2TJ473
R915	ERDS2TJ103
R916, R917	ERDS2TJ821
R918, R919	ERDS2TJ471
R920, R921	ERDS2TJ681
R922	ERDS2TJ103
R925	ERDS2TJ562
R926, R927	ERDS2TJ103
CAPACITORS	
C1, C2	ECEA1VK4R7
C3, C4	ECKD1H681K
C5, C6	ECKD1H103PF
C7, C8	ECEA0JS221
C9, C10	ECQB1H562JZ
C11, C12	ECEA1CKS100
C13, C14	ECKD1H102KB
C15, C16	ECEA1HK010
C17, C18	ECKD2H121KB
C19, C20	ECKD1H561KB
C21, C22	ECEA1VK4R7
C23, C24	ECKD1H122KB
C25, C26	ECBA1H681KB5
C27, C28	ECQB1H223JZ
C29, C30	ECQB1H822JZ
C31, C32	ECQB1H332JZ
C33, C34	ECEA1CKS100
C35, C36	ECEA1HK010
C37, C38	ECEA1CKS100
C39, C40	ECQV1H104JZ
C41, C42	ECEA1CKS100
C43	ECKD1H103PF
C44	ECEA1HKR33
C45, C46	ECQB1H152JZ
C47, C48	ECQB1H472JZ
C49	ECKD1H103PF
C301, C302	ECQB1H103JZ
C303, C304	ECKD1H122KB
C305, C306	ECQB1H223JZ
C307, C308	ECQV1H104JZ
C309, C310	RCBS1H121KBY
C311, C312	ECBA1H681KB5
C313, C314	ECQB1H223JZ
C315	RCBS1H100JCY
C316	ECQP1183JZ
C317	ECEA1VK4R7
C318	ECKD1H562KB
C319, C320	ECKD1H472K
C321	ECKD1H472K
C322	ECKD1H473ZF
C323	ECEA1CKS100
C324	ECEA1AU101
C325	ECEA1CKS100
C401, C402	ECCD1H151K
C403, C404	ECEA1CKS100
C405, C406	ECKD1H471KB
C407, C408	ECQB1H472JZ
C409, C410	ECQB1H472JZ
C411, C412	ECQB1H333JZ
C413, C414	ECAG25ER68L
C415, C416	ECQM1H154JZ
C417, C418	ECEA1CKS100
C419, C420	ECQB1H273JZ
C421, C422	ECQB1H333JZ
C423, C424	ECQB1H392JZ
C425, C426	ECQB1H472JZ
C427, C428	ECEA1HS0R1
C429, C430	ECEA1HUR22
C431, C432	ECKD1H152KB
C433, C434	ECKD1H122KB
C435, C436	ECEA1AU471
C437, C438	ECEA1HK010
C601 ⚠	ECKDKC103PF2
C602	ECEA1CU472
C603	ECEA1CU222
C604, C605	ECKD1H103PF
C606, C607	ECEA1CU331
C608	ECKD1H103PF
C609, C610	ECEA10V1000
C611	ECKD2H682PEL
C612	ECKD1H473ZF
C701, C702	ECEA1HK2R2B
C703	ECEA1HKR47
C704	ECKD1H103PF
C705	ECEA1CKS100
C706	RCBS1H221KBY
C707	ECKD1H103PF
C806	ECEA1AU471
C807	ECEA1EK100
C810	ECEA1HK010
C811	ECEA1EU220
C812	ECEA0JU222
C813, C814	ECKD1H103PF
C815	ECEA1HK010
C816	ECKD1H473ZF
C901	ECEA1CN100S
C902	ECBT1H102KB5

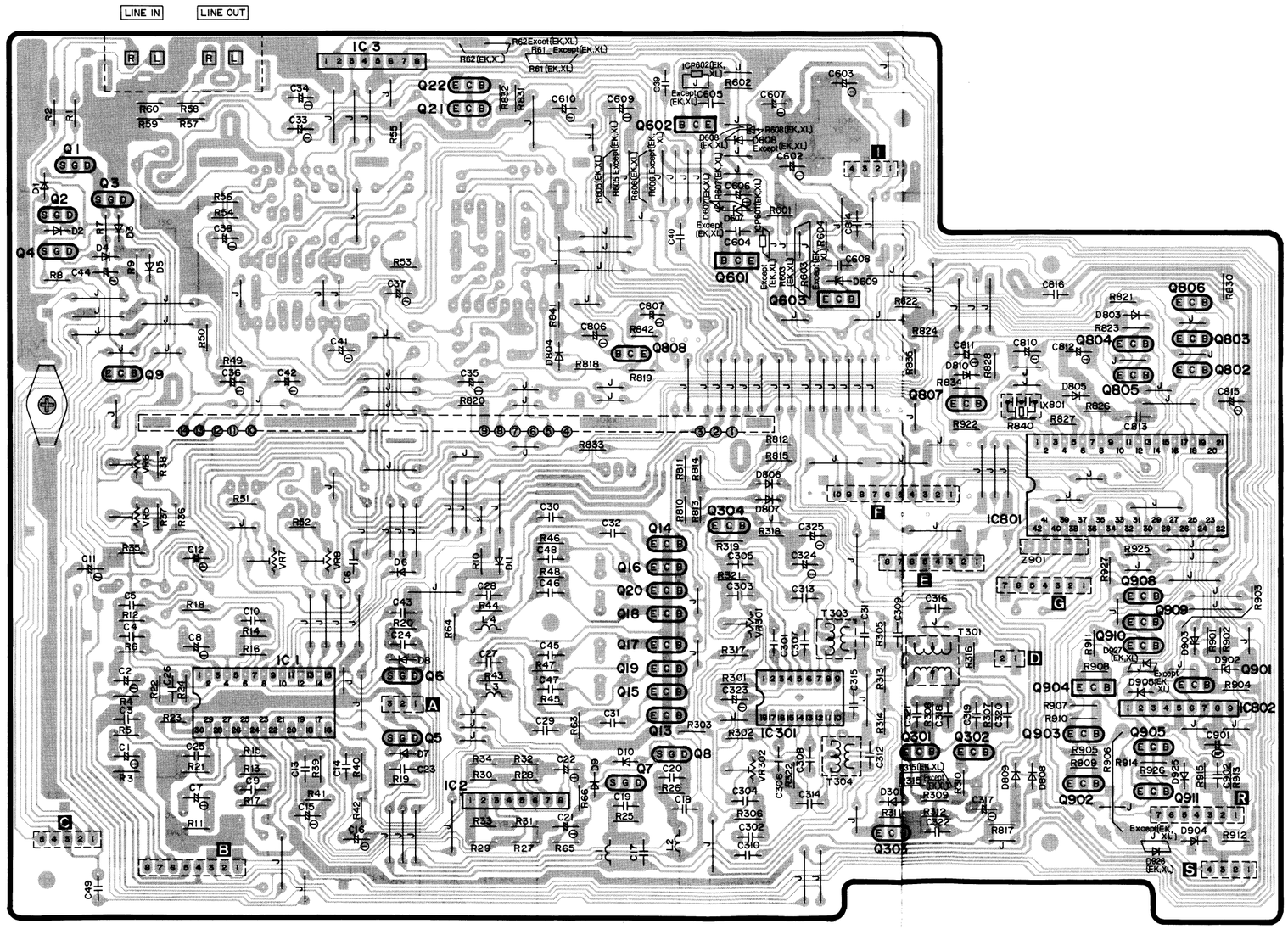
■ BLOCK DIAGRAM



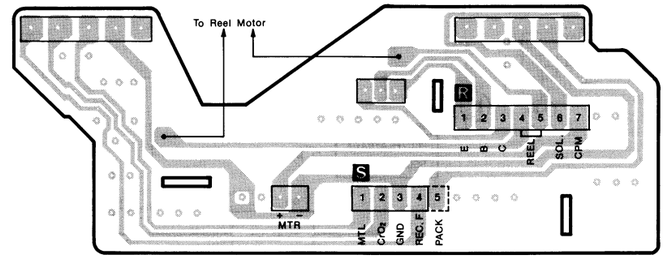
NOTES:
(▬▶): Playback signal
(▭▷): Recording signal

■ PRINTED CIRCUIT BOARDS

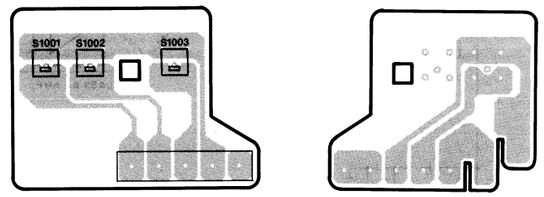
I MAIN P.C.B.



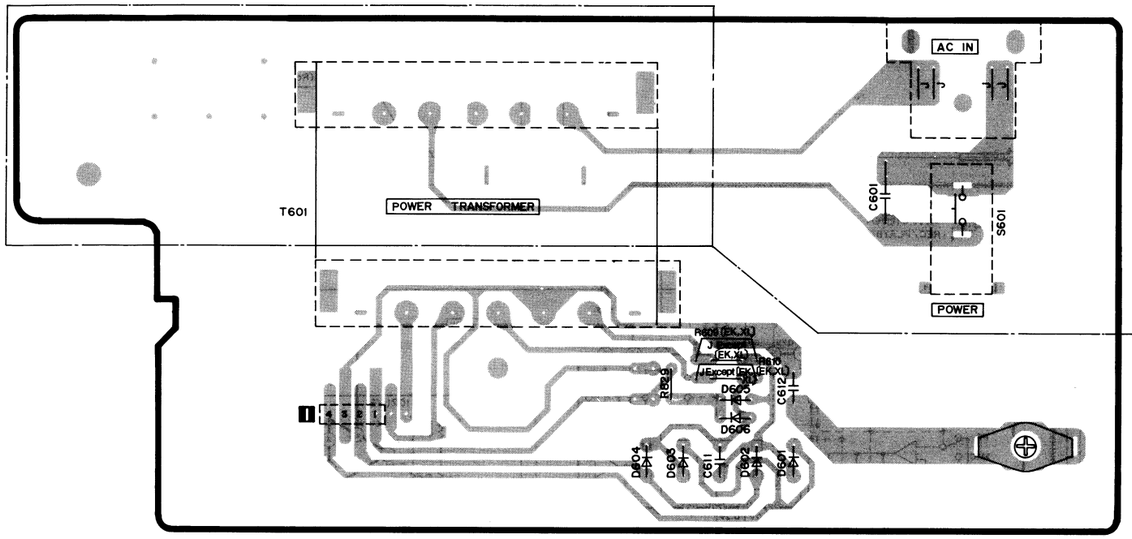
V MECHANISM P.C.B.



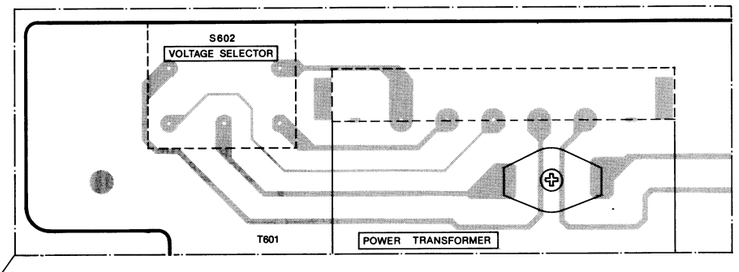
VII MECHANISM SWITCH P.C.B.



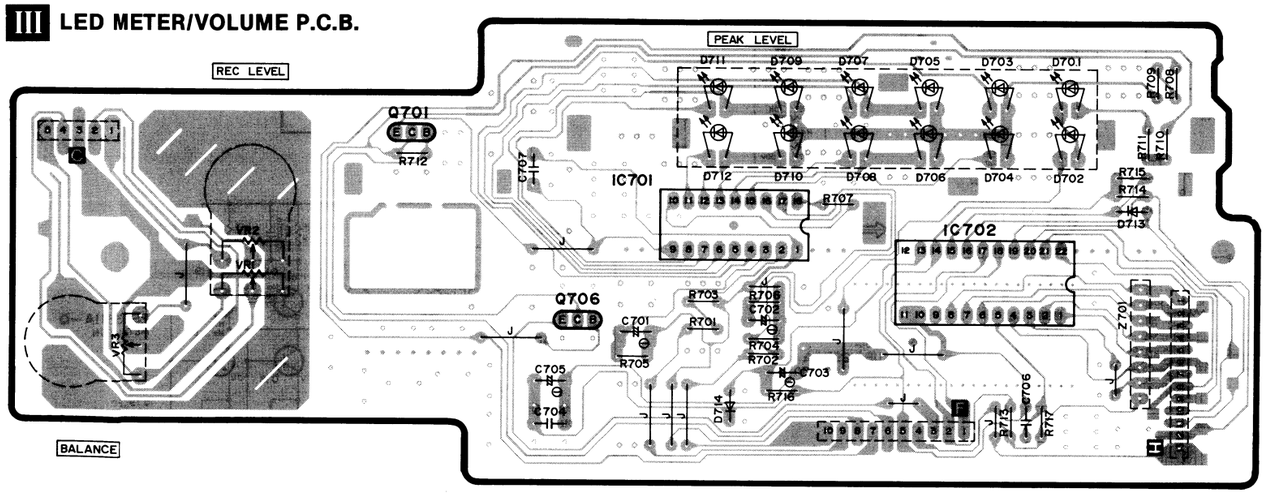
II POWER SUPPLY P.C.B. (Except [XA, XB] areas)



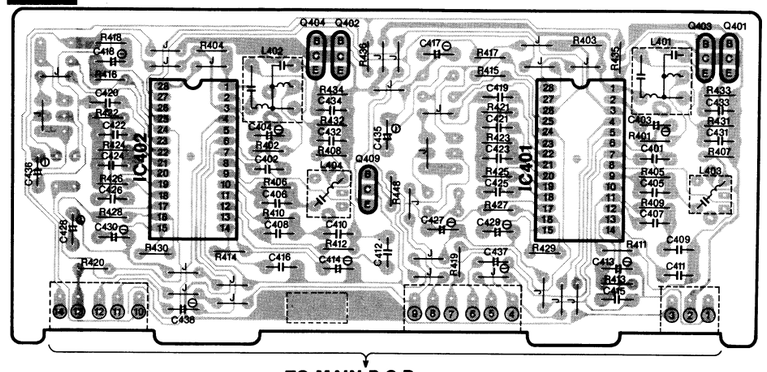
II POWER SUPPLY P.C.B. ([XA, XB] areas)



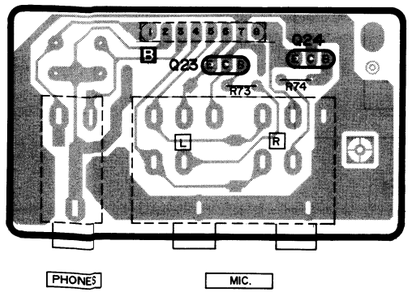
III LED METER/VOLUME P.C.B.



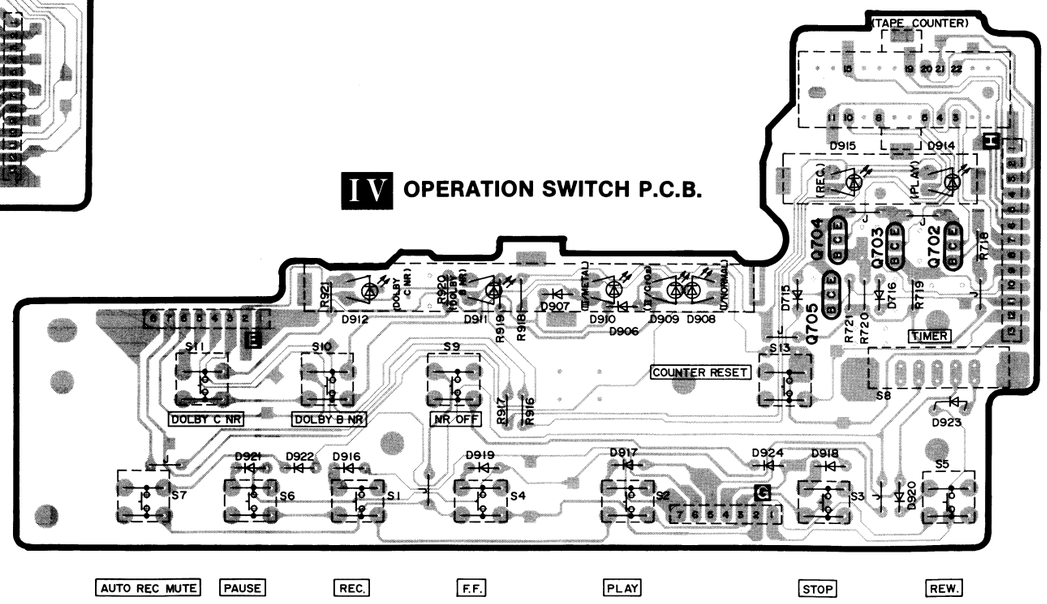
VIII DOLBY NR P.C.B.



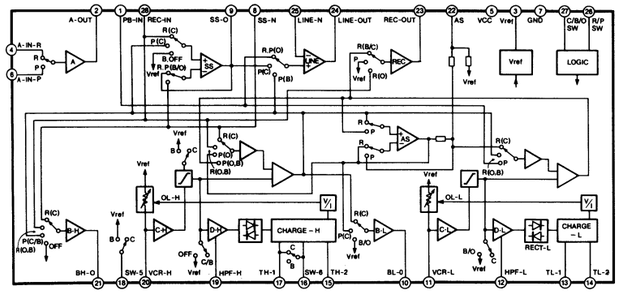
VI HEADPHONES/MICROPHONE JACK P.C.B.



IV OPERATION SWITCH P.C.B.



■ EQUIVALENT CIRCUIT
IC401, IC402: AN7373K



I MAIN CIRCUIT

III VOLUME CIRCUIT

VI MICROPHONE JACK CIRCUIT

Q1,2 2SJ40CD SWITCHING (REC/ON)

Q3,4 2SK381BC SWITCHING (PLAY/ON)

Q5,6 2SJ40CD PLAY/ON

Q7,8 2SK381BC REC/ON

Q23,24 2SDI330R REC/ON

Q9 UN4113 REC/PLAY-BACK SELECTOR

IC1 AN7016NK REC/PLAYBACK AMP

IC2 M5218L CLASS AA AMP

IC301 UPC1297CA DOLBY HX PRO

Q303 2SB1030Q BIAS OSC. CONTROL

Q304 2SB621A-R BIAS OSC. CONTROL

Q301,302 2SC331IA-Q BIAS OSC. CONTROL

Q13,14 2SA1309AQS CrO2/ON

Q15,16 2SA1309AQS 70μS/ON

Q17,18 2SC331IA-Q METAL/ON

Q19,20 2SC331IA-Q 120μS/ON

REC. LEVEL CONTROL

BALANCE CONTROL

OVERALL GAIN ADJ. (VR7(Lch) VR8(Rch))

PLAYBACK GAIN ADJ. (VR5(Lch) VR6(Rch))

OVERALL FREQUENCY RESPONSE (BIAS CURRENT ADJ.) (VR301(Lch) VR302(Rch))

LINE IN

MIC.

REC./PLAYBACK

ERASE HEAD

VIII DOLBY NR CIRCUIT

Q409 2SAI253S REC/PLAYBACK SELECTOR

IC401 AN7373K DOLBY NR

IC401 (L ch)

Q401, 403 2SC3311A-Q BUFFER AMP

IC402 AN7373K DOLBY NR

IC402 (R ch)

Q402, 404 2SC3311A-Q BUFFER AMP

Q808 2SA1309AQS LINE MUTE CONTROL

IC802 BA6218 REEL MOTOR FF/REW SELECTOR

Q908, 909 UN4114 PLUNGER CONTROL

Q902, 903 2SD592ANCQ PLUNGER CONTROL

Q910 UN4211 CAPSTAN MOTOR CONTROL

Q904 2SA885Q CAPSTAN MOTOR CONTROL

Q911 UN4211 ROTARY DETECTION

Q905 2SC3311A-Q ROTARY DETECTION

Q21,22 2SD1330R LINE MUTING

Q807 2SC3311A-Q RESET

Q805 UN4113 REC. / PLAYBACK SELECTOR

Q804 UN4113 PLAYBACK EQUALI - ZER (120/70μs) SELECTOR

Q803 UN4113 DOLBY B/C SELECTOR

Q802 UN4113 DOLBY NR ON/OFF SELECTOR

Q806 UN4113 MUTE CONTROL

Q901 2SD592ANCQ REGULATOR

IC801 M50720-411SP MICRO COMPUTER

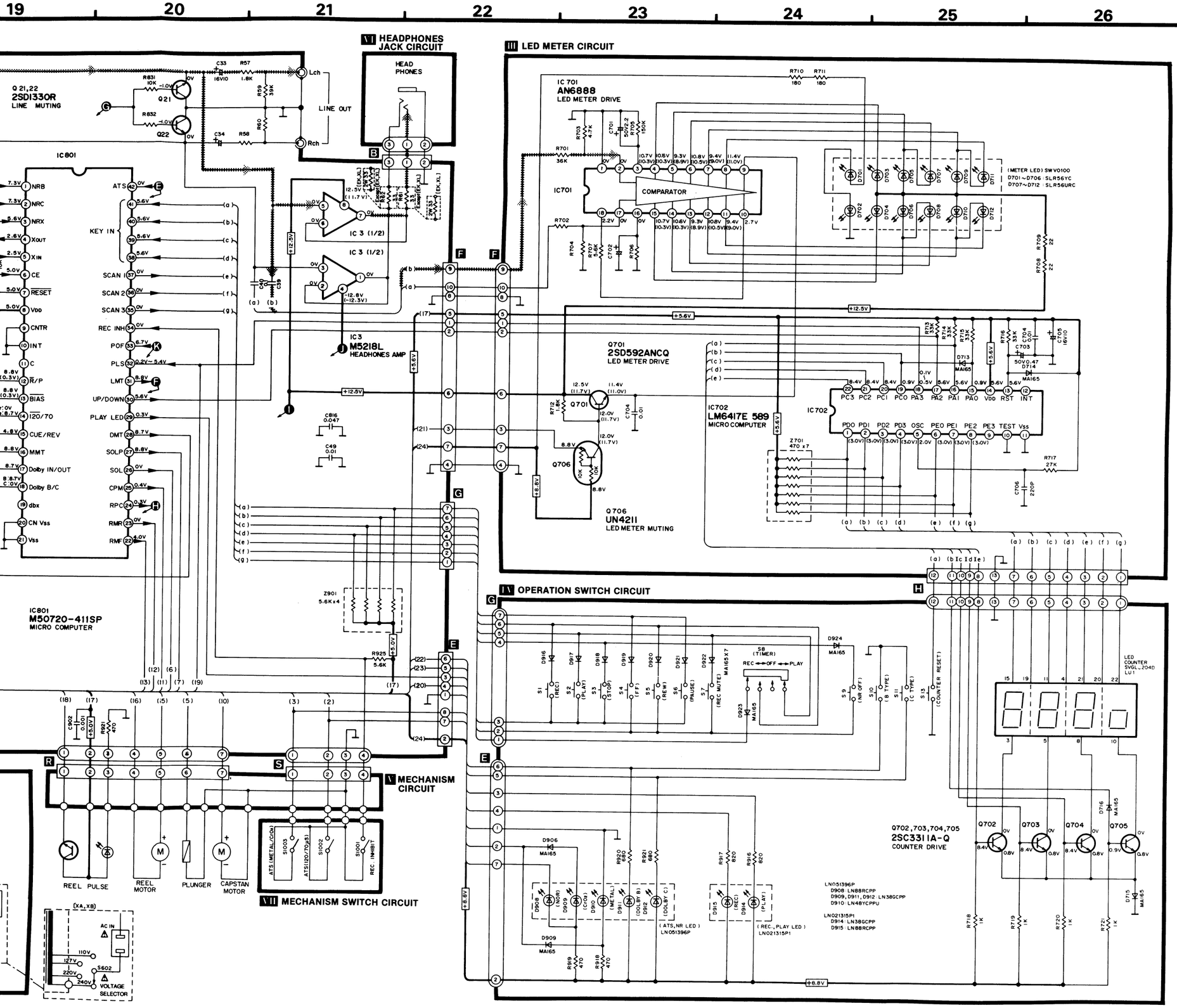
II POWER SUPPLY CIRCUIT

Q603 2SC1846-Q REGULATOR

Q601 2SD1265-Q REGULATOR

Q602 2SB941-P REGULATOR

REEL PULSE · REEL MOTOR · PLUNGER · CAPSTAN MOTOR



■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

Note:

- **S1** : Record switch in **"off"** position.
- **S2** : Play switch in **"off"** position.
- **S3** : Stop switch in **"off"** position.
- **S4** : F.F. switch in **"off"** position.
- **S5** : Rew. switch in **"off"** position.
- **S6** : Pause switch in **"off"** position.
- **S7** : Auto rec. mute switch in **"off"** position.
- **S8** : Timer stand-by switch in **"off"** position.
- **S9** : NR off switch in **"off"** position.
- **S10** : Dolby B NR switch in **"off"** position.
- **S11** : Dolby C NR switch in **"off"** position.
- **S13** : Counter reset switch in **"off"** position.
- **S601** : Power switch in **"on"** position.
- **S602** : Voltage selector **"240V"** position. ([XA, XB] areas)
- **S1001** : Rec. inhibit switch in "off" position.
- **S1002** : ATS (Metal/CrO_2) in **"off (Metal)"** position.
- **S1003** : ATS (120/70 μs) in **"off (70 μs)"** position.
- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
  1K=1,000 (Ω), 1M=1,000k (Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.
  ( )...Voltage values at record mode.
- (—▭—) indicates B (bias).
- (▒▒▒) indicates the flow of the playback signal.
- (⟹) indicates the flow of the record signal.
- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

＊Caution!

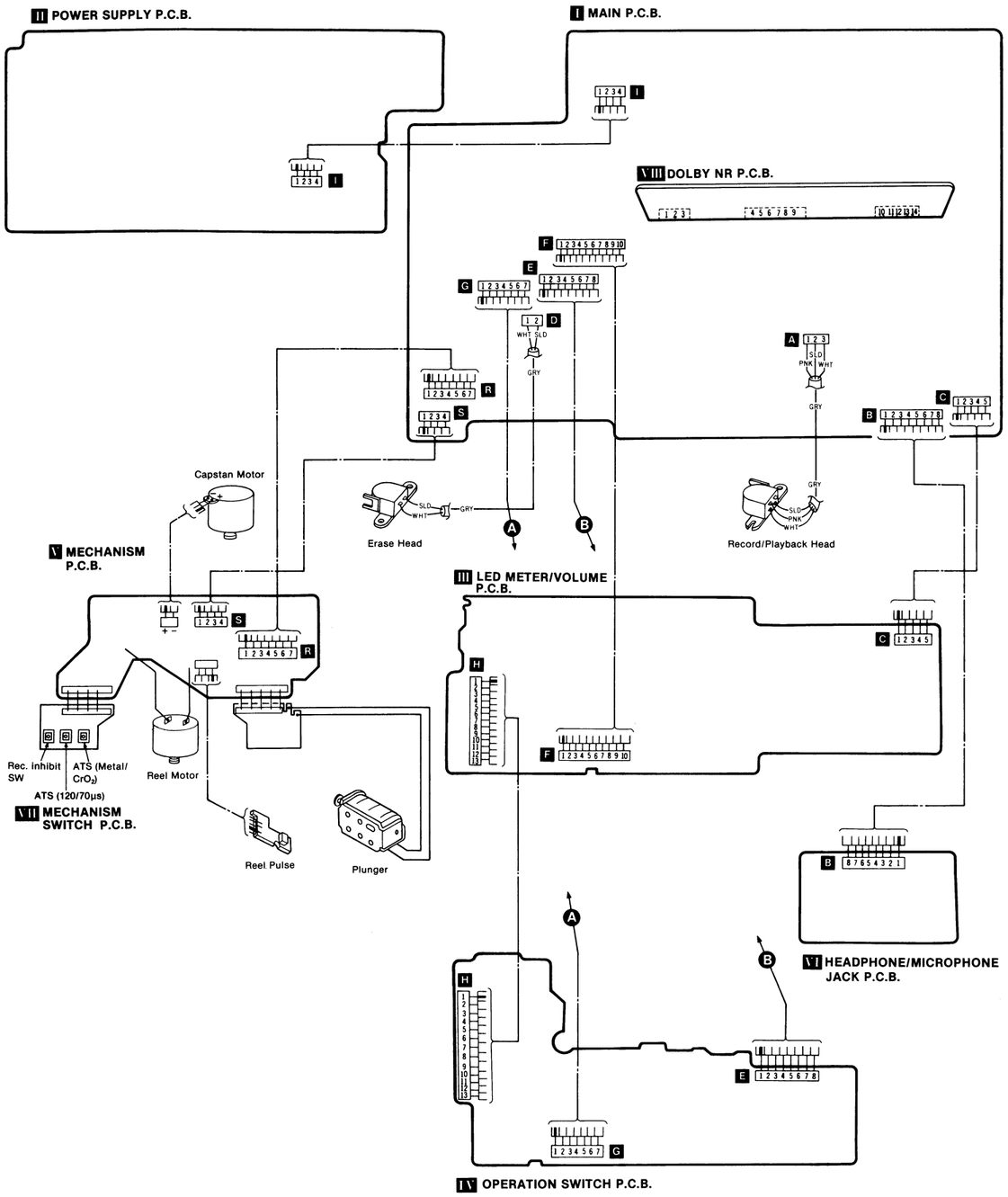
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

- ＊Cover the parts boxes made of plastics with aluminum foil.
- ＊Ground the soldering iron.
- ＊Put a conductive mat on the work table.
- ＊Do not touch the legs of IC or LSI with the fingers directly.

SPECIFICATIONS ＊Input level control...MAX

Overall distortion ＊Test tape ...QZZCRA for Normal ...QZZCRX for CrO_2 ...QZZCRZ for Metal	Normal: less than 3.5% CrO_2•Metal: less than 4%
Overall S/N ratio ＊Test tape ...QZZCRA	Greater than 43dB

■ WIRING CONNECTION DIAGRAM



■ MECHANICAL PARTS LOCATION

SPECIFICATIONS

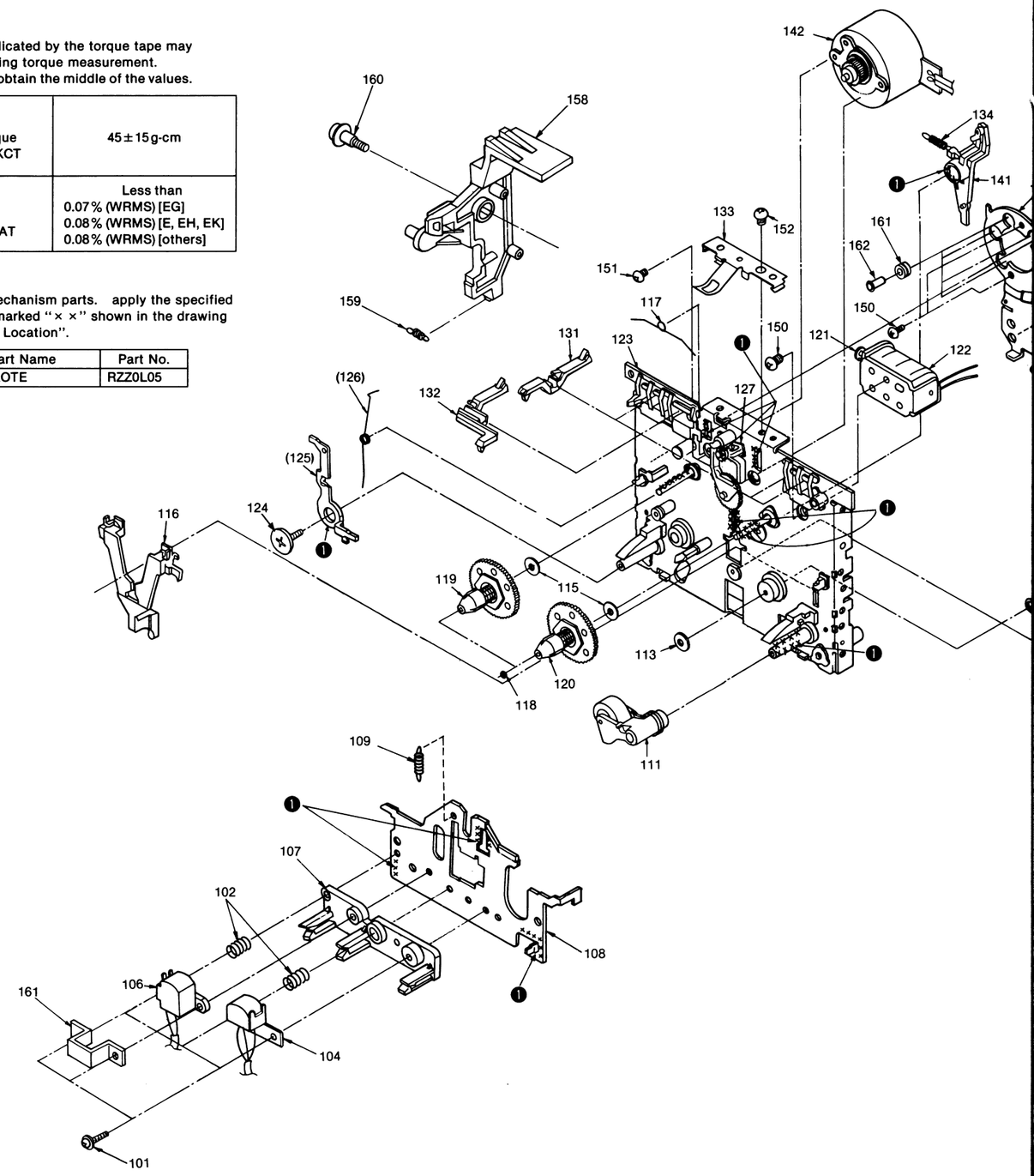
NOTE: The value indicated by the torque tape may fluctuate during torque measurement. In that case, obtain the middle of the values.

Takenup tension * Use cassette torque meter.....QZZSRKCT	45±15g-cm
Wow and flutter * Use test tape .....QZZCWAT	Less than 0.07% (WRMS) [EG] 0.08% (WRMS) [E, EH, EK] 0.08% (WRMS) [others]

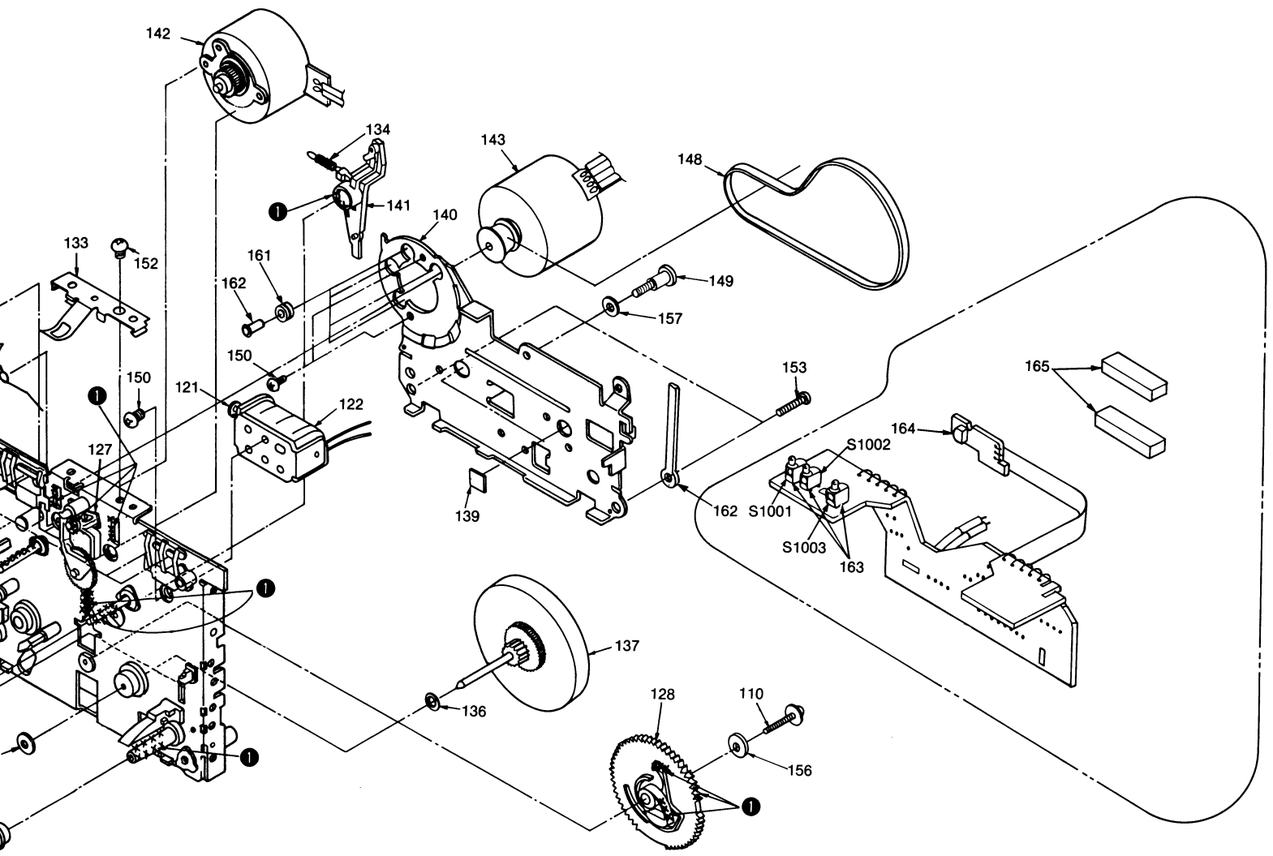
NOTES:

- When changing mechanism parts. apply the specified grease to the are marked "× ×" shown in the drawing "Mechanical Parts Location".

Ref. No.	Part Name	Part No.
❶	MOLYKOTE	RZZ0L05

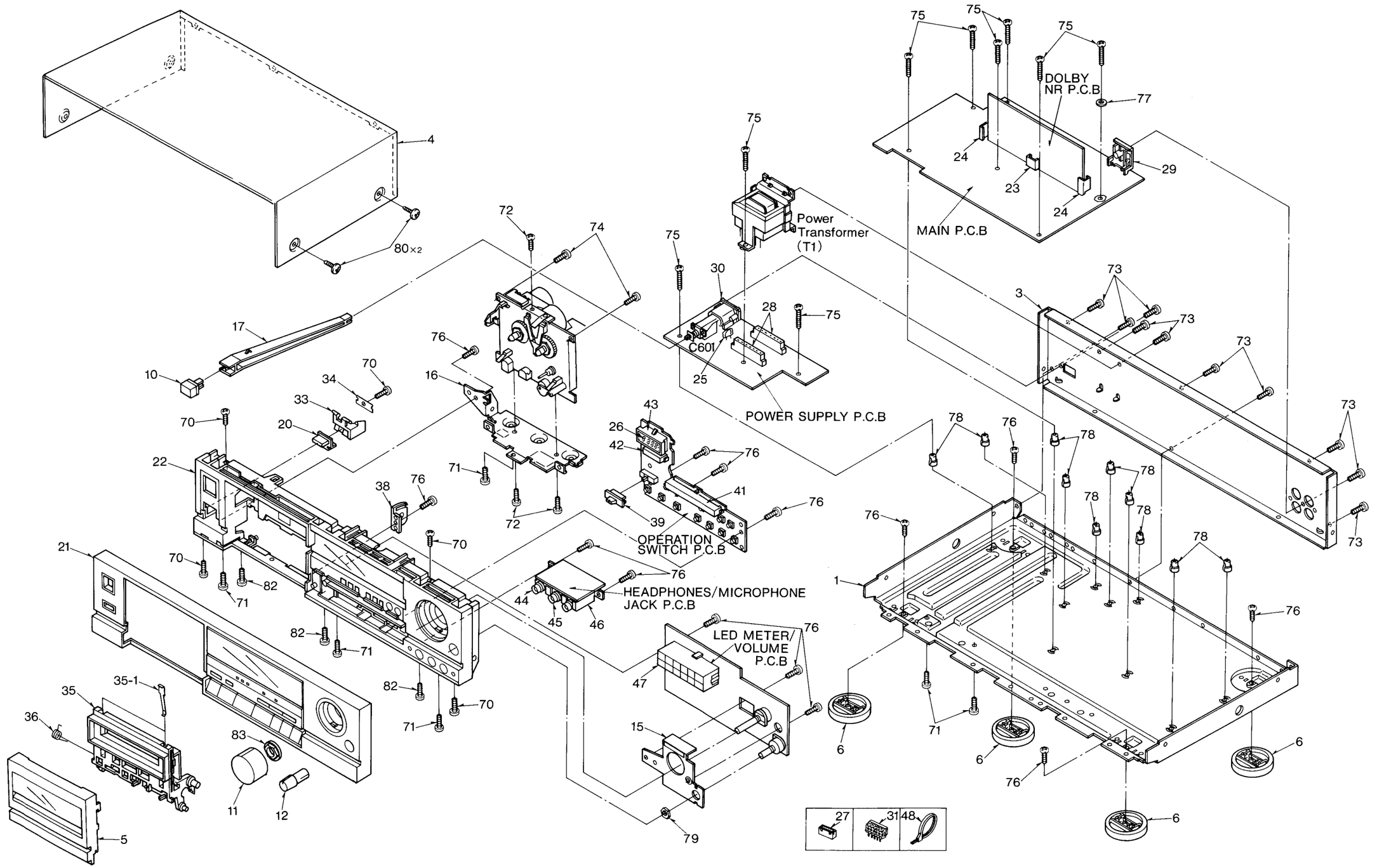


| | | |


142
134
143
148
141
140
133
152
161
162
149
157
150
150
121
122
153
165
127
164
S1002
139
162
S1001
S1003
163
137
136
128
110
156

| | | |

■ CABINET PARTS LOCATION



| | | |

■ REPLACEMENT PARTS LIST

Notes: * Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area.
Parts without these indications can be used for all areas.

* Ⓚ-marked parts are used for black only, while Ⓢ-marked parts are for silver type only.
* Part other than Ⓚ-and Ⓢ-marked are use for both black and silver type.

Ref. No.		Part No.	Description
CABINET AND CHASSIS			
1		SKU1811	BOTTOM BOARD
3		SGP7160E	REAR PANEL
(E)			
3		SGP7160F	REAR PANEL
(EH, EG)			
3		SGP7160G	REAR PANEL
(EK)			
3		SGP7160H	REAR PANEL
(XL)			
3		SGP7160I	REAR PANEL
(XA, XB)			
4	Ⓚ	SKC2110K99	CABINET BODY
4	Ⓢ	SKC2110S98	CABINET BODY
5	Ⓚ	SGE1901-3	CASSETTE LID
5	Ⓢ	SGE1901-4	CASSETTE LID
6		SKL313	INSULATOR
10	Ⓢ	SBC666	BUTTON, POWER
10	Ⓚ	SBC666-5	BUTTON, POWER
11	Ⓚ	SYTM10ZC0A	DIAL, REC LEVEL
11	Ⓢ	SYTM10ZS0A	DIAL, REC LEVEL
12	Ⓢ	SBDM10MA0A	KNOB
12	Ⓚ	SBDM10ZK0A	KNOB
15		SUW3091	BRACKET
16		SUW3093	BRACKET
17		SUB268	ROD
20	Ⓢ	SBC736	BUTTON
20	Ⓚ	SBC736-1	BUTTON
21	Ⓚ	SGWSB505-KE	FRONT PANEL
21	Ⓢ	SGWSB505-SE	FRONT PANEL
22	Ⓚ	SGXSB505-KE	SUB PANEL
22	Ⓢ	SGXSB505-SE	SUB PANEL
23		SMN2043	ANGLE
24		SME103-4	SHIELD PLATE
26		SVGLC204DLU1	L.E.D
27		SJT3017	TERMINAL PLATE
27		SJT3213	CONNECTOR
27		SJT3319	CONNECTOR
28		SJS501	CONNECTOR
29		SJF3057N	TERMINAL BOARD
30	⚠	SJS9236	AC INLET
31		SJT30540LX-V	CONNECTOR(5-P)
31		SJT30740LX-V	CONNECTOR
31		SJT30840LX-V	CONNECTOR(8-P)
33		SUB236-2	ROD
34		SUW3090	BRACKET
35		SGXSB505-KE1	CASSETTE HOLDER
35-1		QBP2006A	SPRING
36		SUS869	LEAF SPRING
38		QTG40076	GUIDE
39	Ⓚ	SBD145	BUTTON
39	Ⓢ	SBD145-1	BUTTON
41		LN051396P	DIODE, GAASP
42		LN021315P1	DIODE, GAASP
43		SHRM9022-1	HOLDER
44		SJJ126B	JACK
45		SJJ127HH	JACK
46		SUW3092	BRACKET
47		SWV0100	LED ASS'Y
48		SHR301	CLAMPER
82		XTS3+8JFZ	SCREW
83		SNE4021	NUT
SCREWS, WASHERS AND NUTS			
70		XTB3+8J	SCREW
71		XTB3+6JFZ	TAPPING SCREW
72		XTB3+6FFR	TAPPING SCREW
73		XTB3+8JFZ	SCREW
74		XTB3+12JFR	SCREW
75		XTB3+20J	SCREW
76		XTB3+10J	SCREW
77		XWA3B	WASHER
78		SHE187-2	HOLDER
79		XNS8FZ	NUT
80	Ⓢ	SNE2129	SCREW
80	Ⓚ	SNE2129-1	SCREW
81		XWG2	WASHER

Ref. No.		Part No.	Description
ACCESSORIES			
A1		SQF13084	INST. MANUAL
(E, EH, XA)			
A1		SQF13085	INST. MANUAL
(EK)			
A1		SQF13089	INST. MANUAL
(EG)			
A1		SQF13095	INST. MANUAL
(XL)			
A1		SQF13106	INST. MANUAL
(XB)			
A2		SJP2264	CORD
A3	⚠	SFDAC05G02	POWER CORD
(EK)			
A3	⚠	SJA168	POWER CORD
(XA)			
A3	⚠	SJA171	POWER CORD
(E, EH, EG)			
A3	⚠	SJA173	POWER CORD
(XL)			
A3	⚠	SJA183	POWER CORD
(XB)			
A4	⚠	RJP120ZBS-H	AC PLUG ADAPTOR
(XA, XB)			

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H870706200 MY/IM/AM

ORDER NO. HAD8802035S8

Service Manual

Supplement

Cassette Deck

RS-B505

dbx**/Dolby NR Equipped
Stereo Cassette Deck

Color

(K)...Black Type
(S)...Silver Type

DOLBY B·C NR HX PRO*

Color	Areas
(K) (S)	[E] .....Continental Europe.
(K) (S)	[EK].....United Kingdom.
(K) (S)	[EG].....F.R. Germany.
(K) (S)	[EH].....Holland.
(K) (S)	[XA].....Asia, Latin America, Middle Near East, Africa and Oceania.
(K) (S)	[XL].....Australia.
(K) (S)	[XB].....Saudi Arabia.

Please file and use this supplement manual together with the service manual for Model No. RS-B505, Order No. HAD8707233C8.

Notes:
THIS SUPPLEMENT HAS BEEN ISSUED TO CORRECT ERRORS IN "SCHEMATIC DIAGRAM" (ON PAGE 15 AND 35) AND "EXPLODED VIEWS" (PAGE 30 AND 34).

CHANGES

■ REPLACEMENT PARTS LIST

Ref. No.	Change of Parts No. OLD	→ NEW	Part Name	Per Set (Pcs.)	Remarks
RESISTORS					
R906 R608	ERDS2TJ560	**ERDS2TJ560 [EK, XL]**	Resistor, 1/4W, 56Ω	2	Addition of areas

* HX Pro headroom extension originated by Bang Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY", the double-D symbol, and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

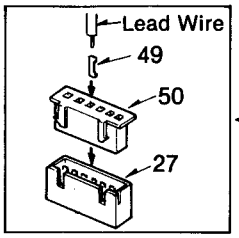
** The term dbx is a registered trademark of dbx Inc.

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

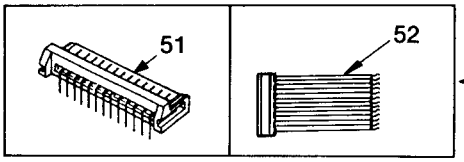
Ref. No.	Change of Parts No. OLD	NEW	Part Name	Per Set (Pcs.)	Remarks
CABINET AND CHASSIS					
25	——	**SMX897**	SPACER, Capacitor (C601)	1	Addition
27	SJT3017	——	TERMINAL PLATE	0	Deletion
31	——	**SJT30443-V**	CONNECTOR (4-P)	12	Addition
31	——	**SJT31043-V**	CONNECTOR (10-P)	12	Addition
49	——	**SJS5215**	SOCKET (2-P)	1	Addition
49	——	**SJS5331**	SOCKET (3-P)	1	Addition
50	——	**SJT783**	CONTACT	1	Addition
51	——	**SWCSB505E1-1**	CONNECTOR ASS'Y (13-P)	1	Addition
52	——	**EMCS1350ZL**	SOCKET (13-P)	1	Addition

■ EXPLODED VIEWS



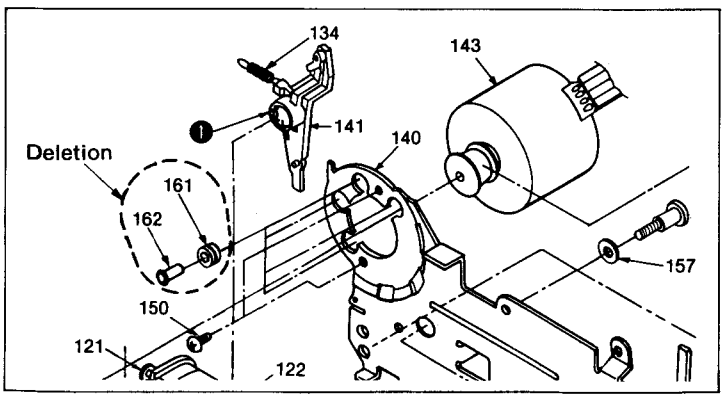
Correction

① Ref No. 49 and 50 are omitted from the "Exploded View" in The "Replacement Parts List" of the service manual.

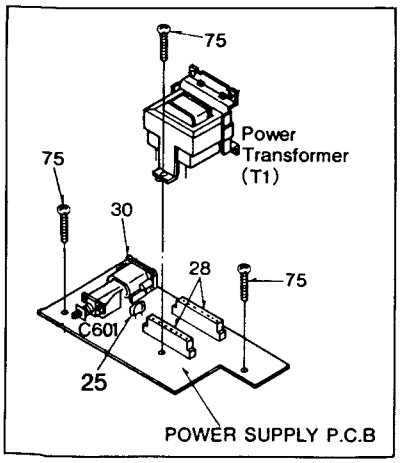


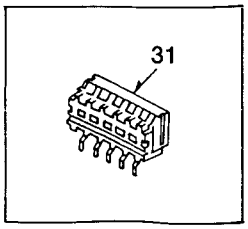
Addition

② Ref No. 51 and 52 are omitted from the "Exploded View" and "Replacement Parts List" of the service manual.
(These parts are used as the "H" terminal of the LED meter P.C.B.)



③ Ref No. 161 and 162 are duplicated in the "Exploded View" of the service manual. Ref No. 161 and 162 indicated here are not used in this unit. The "Replacement Parts List" is correct.





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